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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/941,655	08/30/2001	Hiroshi Kanazawa	381KA/50358	7423

7590 10/23/2002

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EXAMINER

ELKASSABGI, HEBA

ART UNIT PAPER NUMBER

2834

DATE MAILED: 10/23/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/941,655

Applicant(s)

KANAZAWA ET AL.

Examiner

Heba Elkassabgi

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 July 2002.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-6 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Kusase et al. U.S. Patent 5483116.

Kusase et al. discloses in Figure 1 a rotating electric machine in which a rotor (3), stator (2) are functioned by a stator coil (5) over a stator core (4), with the rotor having a pair of claw-type magnetic poles (15 and 16) placed in alternative directions and in contact with the whole of the magnetic pole surface of the permanent magnet. A permanent magnet (11) is placed close to a pair of claw-type magnetic poles with the field coils (8) placed radially internally within the claw-type magnetic poles. Kusase et al., further illustrates in Figure 3, the auxiliary magnetic pole portion (AA) in contact with the whole of the magnetic pole surface (BB) of the permanent magnet (11), with the auxiliary magnetic pole portion has a greater width (CC) in the radial outer side of the rotor than the inner side. The inner surface (DD) of the claws in the radial direction of the rotor is parallel to an outer surface of the rotor, with the claws (15) interconnected by a ring-shape member (25); in addition the claws have a magnet holding portion (AA). Further more, Figure 8 discloses a protective covering (PC) on the radial direction of the outer side of the permanent magnet.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kusase et al. U.S. Patent 5483116 and further in view of Ragaly J.P. Application 11285214.

Kusase et al. discloses in Figure 1 a rotating electric machine in which a rotor (3), stator (2) are functioned by a stator coil (5) over a stator core (4), with the rotor having a pair of claw-type magnetic poles (15 and 16) placed in alternative directions and in contact with the whole of the magnetic pole surface of the permanent magnet. A permanent magnet (11) is placed close to a pair of claw-type magnetic poles with the field coils (8) placed radially internally within the claw-type magnetic poles. However, Kusase et al. does not divulge an auxiliary magnetic pole plate with a magnet-holding portion placed between a plurality of claws and permanent magnet, with the auxiliary magnetic pole plate contacting the whole of the magnetic pole surface of the permanent magnet.

Ragaly illustrates in Figure 16, magnetic pole plates (m2 and m3) in contact with the whole of the permanent magnet (m1) placed between a pluralities of claws (GG). In addition that the auxiliary magnetic pole plate (m2 and m3) have a magnet holding

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portion (HH) for the permanent magnet (m1), for the purpose of improving the permanent magnet holder and simplifying construction and lower manufacturing cost.

It would have been obvious at the time the invention was made to a person having ordinary skill in the art to modify Kusase et al. by adding the magnetic pole plate between the claws and amid the permanent magnet, with the magnet-holding portion in contact with the pole plate.

Response to Arguments

Applicant's arguments filed 07/22/02 have been fully considered but they are not persuasive.

Applicant's arguments address points that are in light of the specification. Though the claims are read in light of the specification the limitations of the specifications are not read into the claims.

In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., the rectangular lateral surfaces of permanent in the circumferential direction of the rotor, magnetic poles are tapered, becoming gradually thinner in the radial dimension toward their axial tips, radially thinner than the adjacent magnets, and do not extend radially downward over the entire lateral magnetic pole surface of the adjacent permanent magnets, tapered configuration for the bulk of the respective claws, by means of the downwardly extending auxiliary magnetic pole portions, which cover the surface of the adjacent magnets.) are not recited in the rejected claims. Although the

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claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

In response to applicant's argument that applicant's invention "enhances the magnetic flux in the magnetic circuit formed between the rotor and the stator," is that the applicant has recognized another advantage, which would flow naturally from following the suggestion of the prior art, cannot be the basis for patentability when the differences would otherwise be obvious. See *Ex parte Obiaya*, 227 USPQ 58, 60 (Bd. Pat. App. & Inter. 1985).

Applicants arguments of Claim 1 and 7 of the present invention distinguishes over Kusase et al. does not recite the limitation of "a shape such that the opposing faces of adjacent claws are in contact with the entire magnetic pole surfaces of the permanent magnets," is seen by the examiner that the limitation is met by Kusase et al. as shown in Figure 3 as addressed in above action by the examiner. Figure 3 indicates a Permanent magnet (11) in which the opposing faces are in contact with the entire opposing pole surfaces.

Applicants arguments of Claim 7 of the limitation of the "an auxiliary magnetic pole plate is interposed between each of the plurality of claws and the adjacent permanent magnets and that each auxiliary magnetic pole plate has a shape such that it makes contact with the whole of the magnetic pole surfaces of the permanent magnet," is seen by the examiner that the limitation is met by Ragaly, as shown in Figure. 16 indicates claw poles (GG) in which the pole plates (m3 and m2) is interposed between

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each of the claws and the adjacent magnet (m1) and that the pole plates have a shape that makes contact with the whole of the magnetic pole surfaces of the permanent magnet. Applicant claim is "has a shape such that it makes contact with the whole of the magnetic pole surface", applicant does not specify specifically a shape in which the poles make a contact with the magnetic pole and that the whole of the magnet pole surface is interpreted by the examiner to be the whole of the opposing pole face that the magnet comes in contact with the plate.

Applicant's argument of Claim 3 not meeting the limitation of "magnetic pole portion has a greater thickness at a radially outer portion than at a radially inner portion is a design choice in size. It would have been an obvious matter of design choice to change to shape of the pole portion as would be seen fit by one of ordinary skill in the art, since such a modification would have involved a mere change in the size of a component. A change in size is generally recognized as being within the level of ordinary skill in the art. In re Rose, 105 USPQ 237.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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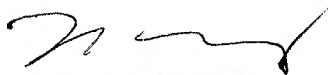
shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Heba Elkassabgi whose telephone number is (703) 305-2723. The examiner can normally be reached on M-Th (6:30-3:30), and every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nestor Ramirez can be reached on (703) 308-1371. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3431 for regular communications and (703) 305-3432 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1782.

Heba Y. Elkassabgi
October 19, 2002


NESTOR RAMIREZ
SUPERVISORY PATENT EXAMINER
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